A discrete random variable X takes a fixed set of possible values with gaps between. The probability distribution of a discrete random variable X lists the values x_i and their probabilities p_i:

Value:	x_1	x_2	x_3	$\ldots$
Probability:	p_1	p_2	p_3	$\ldots$

– Mean (expected value)

$$\mu_X = E(X) = \sum x_i p_i$$

– Variance of X

$$\mathbf{Var}(X) = \sigma_x^2 = \sum (x_i - \mu_x)^2 p_i$$